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European Journal of Special Needs Education

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713698481>

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Online publication date: 19 November 2010

To cite this Article Lebeer, J. , Struyf, E. , De Maeyer, S. , Wilssens, M. , Timbremont, B. , Denys, A. and Vandeveire, H.(2010) 'Identifying special educational needs: putting a new framework for graded learning support to the test', European Journal of Special Needs Education, 25: 4, 375 – 387

To link to this Article: DOI: 10.1080/08856257.2010.513542

URL: <http://dx.doi.org/10.1080/08856257.2010.513542>



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Identifying special educational needs: putting a new framework for graded learning support to the test

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(Received 7 March 2010; final version received 14 May 2010)

This paper reports a field test of a new system of Graded Learning Support Classification Matrix to determine special educational needs (SEN) in a more systemic way, proposed by the Belgian Ministry of Education (Flanders Region), to put a barrier to the trend of referrals to special education schools. It is not directly determined by a child's medical diagnosis, but suggests SEN to be a product of the needed level of curricular adaptation and classroom support, and the child's broad category (cluster) of functional difficulties. A sample of 8648 pupils (aged 2.5–18) from regular and special education was assigned into the new matrix by collaborators of all 73 Centres for Pupils' Counselling (CPC), according to new criteria. Data were compared with current allocations. About 20% of children of primary school age have some kind of 'special' needs. 12.5 % of primary school aged children (8.9% of secondary school) have mild intellectual impairment and/or learning disability; and 3.3% (3.4%) have a diagnosed behavioural or autistic spectrum disorder. Using the new classification matrix, the number of children with SEN is much higher than before, but this reflects more the actual classroom reality and it allows a better estimation of true needs and resources, by the government as well as by the school. A matrix presentation of SEN as a 'product' of child characteristics and 'levels of curricular adaptations' seems to be a better answer to special needs than the present linear definition. We propose this broad matrix definition of SEN as an international standard in order to make figures across countries comparable. All staff will have to be trained to adopt a more needs-based, dynamic, contextual assessment system, based on a more social model of disability, taking into account contextual factors such as family and school environment, rather than the currently widely used psychometric way.

Keywords: graded learning support classification matrix; definition of special educational needs; inclusive education; prevalence of SEN; needs-based contextual assessment of SEN

Background

During the last decades, a worldwide movement towards inclusive education has been taking place, with the objective of integrating children with special needs into regular education settings. This movement is motivated by a growing concern of parents and

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organisations of children with disability to be recognised as full citizens with equal rights and to be included in society, and not be excluded from the very beginning in separate schooling (Daniels and Garner 1999). The right to inclusive education has been crystallised in the 2006 UN Convention on the Rights of People with Disabilities (UN Convention on the Rights of People with Disability 2006). Since the 1994 UNESCO conference in Salamanca (Spain), (The Salamanca Statement and Framework for Action on Special Needs Education 1994) governments have been taking political measures to make inclusive education possible. Inclusive education has been mainly motivated by a human rights perspective, but also has pedagogical and developmental advantages for regular as well as special children, provided that it is well conceived and organised.

The trend towards inclusive education poses a challenge for mainstream school teachers, who have to deal increasingly with children with special educational needs (SEN). One of the problems is to define *SEN* and who is entitled to define it. There exists a wide disparity between European countries in the prevalence of children with special needs. Finland for example reported 17.8% of children with special needs in 1999, whereas Belgium reported 5% and Sweden only 2% (European Agency for Development in Special Needs in Education [EADSNE] 2003). Clearly, these numbers are not comparable, due to the variety of definitions and measurements of SEN. In planning support services and inclusive education, however, it would be important to have a clear picture of what are the truly 'special' needs of the child. Also when comparing European numbers, it is important to use the same definition.

Equally, there are large differences among European countries in the proportion of children being schooled in separate special needs provisions. In Italy and Norway, it is a national policy to include all children with SEN, whatever their impairments. Belgium, inversely, is one of the most separating countries in Europe as regards children with SEN (EADSNE 2003).

Concerning current practice regarding special needs assignment in Belgium, two major problems occur. The first is the referral policy, which is causing an increase in referrals to special schools: in Belgium the 'statement' of special needs, the right to learning support, to stay in the mainstream or go to a special school, has to be given after a thorough assessment by the Centres for Pupils' Counselling (CPC). These are government-financed multidisciplinary centres, joining school psychological and youth health services. Despite measures and financial incentives to 'broaden' the school and keep children as much as possible in mainstream education, referral to special schools has increased by 50% during the past 10 years in Belgium (Van Rompu et al. 2007). At the same time, the request to have special needs support teachers in regular schools has more than doubled in the past seven years. The latter 'integrated' education system, in existence since 1977, is reserved for children with normal intellectual function. During recent years there has been a boom of children diagnosed with autistic spectrum (ASD) or other behavioural disorder worldwide. However, it is still unclear whether this a reflection of a true increase in incidence, or due to a more frequent diagnosis (Gillberg et al. 2006; Senecky et al. 2009). The effect is in any case that teachers and CPC's are confronted with a dramatic increase in ASD. Requests for a 'special needs status' are sometimes made by schools or parents, who demand an official recognition of a learning disorder in order to obtain protective measures, adaptations or support. That system is almost exploding. It not only puts a large financial burden on the state budget, but also puts a particular challenge to regular schools who need to develop the competencies to deal with a growing number of children with special educational needs. Because referral to special schools, despite governmental

incentives to promote mainstreaming, continues to increase in Belgium – a country that for the time being still allows this to take place – we infer that regular schools do not feel capable of dealing with this challenge.

A minority of parents of children with intellectual disability in Belgium claim a right to inclusive education. Since 2002 a pilot project has provided a system of support by special needs teachers from special schools, assigned 5.5 hours per week to the regular schools to support children with intellectual disability.

The second problem is the apparent inadequacy of the special schools typology. Belgium has eight types of special schools, which divide the children according to medically defined disturbance-based target groups (Table 1). This has led to confusion: where do we put children with multiple impairments? Where do children with autistic spectrum (ASD) or other communication disorders belong? Up until now they were artificially assigned to the target group of hearing and language-impaired children. This has caused a transformation of the schools for the deaf, which are ‘caring’ now for a big proportion of children with ASD. On the other hand, children with below-average IQ, but not yet officially in the spectrum of intellectual disability (IQ 70–95), often have behavioural and academic learning difficulties, but do not get a ‘disturbance’ certificate, excluding them from the official category of disability. Psychologists up till now sometimes artificially gave them a certificate, in order to be able to send them to special schools (type 1), because they then drop out of the

Table 1. Sample stratification: current (2008) stratification and curricular ‘tracks’ of regular and special needs school assignments in Flanders (Belgium) – prior to reform – as a basis for sample calculation. Typology of special schools in secondary education is the same as in elementary education, but there are four levels; only level four leading in principle to a regular diploma; level 1–3 not leading to a diploma.

	Population		Calculated minimum sample		Effectively reached sample	
	n	%	n	%	n	%
BASIC – elementary (4–12y)						
Regular schooling						
With SEN assistance	5284	0.81%	359	12.50%	351	12.59%
Without assistance	616,811	94.72%	384	13.37%	369	13.24%
<i>Subtotal</i>	<i>622,095</i>	<i>95.53%</i>	<i>743</i>	<i>25.86%</i>	<i>720</i>	<i>25.82%</i>
Special schools						
Type 1 (mild intellectual impairment)	10,029	1.54%	371	12.91%	365	13.09%
Type 2 (moderate and severe intellectual impairment)	4660	0.72%	355	12.36%	351	12.59%
Type 3 (behavioural disturbance)	2182	0.36%	327	11.38%	313	11.23%
Type 4 (motor impairment)	1365	0.21%	300	10.44%	296	10.62%
Type 6 (visual impairment)	162	0.03%	115	4.00%	87	3.12%
Type 7 (language impairment)	1209	0.19%	292	10.16%	292	10.47%
Type 8 (learning difficulties without intellectual impairment)	9484	1.46%	370	12.88%	364	13.06%
<i>Subtotal</i>	<i>29,091</i>	<i>4.47%</i>	<i>2130</i>	<i>74.14%</i>	<i>2068</i>	<i>74.18%</i>
<i>Totals elementary</i>	<i>651,186</i>	<i>100.00%</i>	<i>2873</i>	<i>100.00%</i>	<i>2788</i>	<i>100.00%</i>

Table 1. (Continued).

	Population		Calculated minimum sample		Effectively reached sample	
	n	%	n	%	n	%
BASIC – elementary (4–12y)						
SECONDARY (13–18y)						
Regular schooling						
With SEN assistance	3123	0.68%	343	5.94%	339	5.99%
A-track (middle school preparing for A– levels)	115,016	25.07%	383	6.63%	374	6.61%
B-track (preparation for vocational)	21,159	4.61%	378	6.54%	367	6.49%
ASO (A–levels)	118,101	25.75%	383	6.63%	375	6.63%
BSO (vocational training)	78372	17.08%	383	6.63%	374	6.61%
KSO (artistic schools)	5948	1.30%	361	6.25%	351	6.21%
TSO (technical education)	92,952	20.26%	383	6.63%	381	6.74%
DBSO (partial learning/work)	6345	1.38%	363	6.29%	356	6.30%
<i>Subtotal</i>	<i>441,016</i>	<i>96.14%</i>	<i>2977</i>	<i>51.54%</i>	<i>2917</i>	<i>51.58%</i>
Special schools						
Level 1 – Type 2	2246	0.49%	329	5.70%	327	5.78%
Level 1 – Type 3	25	0.01%	24	0.42%	23	0.41%
Level 1 – Type 4	716	0.16%	251	4.35%	251	4.44%
Level 1 – Type 6	153	0.03%	110	1.90%	87	1.54%
Level 1 – Type 7	204	0.04%	134	2.32%	134	2.37%
Level 2 – Type 2	2341	0.51%	331	5.73%	329	5.82%
Level 2 – Type 3	71	0.02%	61	1.06%	61	1.08%
Level 2 – Type 4	240	0.05%	148	2.56%	148	2.62%
Level 2 – Type 6	28	0.01%	27	0.47%	27	0.48%
Level 2 – Type 7	59	0.01%	52	0.90%	49	0.87%
Level 3 – Type 1	9261	2.02%	369	6.39%	368	6.51%
Level 3 – Type 3	1370	0.30%	301	5.21%	301	5.32%
Level 3 – Type 4	89	0.02%	73	1.26%	73	1.29%
Level 3 – Type 6	24	0.01%	23	0.40%	9	0.16%
Level 3 – Type 7	277	0.06%	162	2.80%	162	2.86%
Level 4 – Type 3	268	0.06%	159	2.75%	159	2.81%
Level 4 – Type 4	139	0.03%	103	1.78%	103	1.82%
Level 4 – Type 6	23	0.01%	22	0.38%	13	0.23%
Level 4 – Type 7	173	0.04%	120	2.08%	114	2.02%
<i>Subtotal</i>	<i>17,707</i>	<i>3.86%</i>	<i>2799</i>	<i>48.46%</i>	<i>2738</i>	<i>48.42%</i>
Totals secondary schools	458,723	100.00%	5776	100.00%	5655	100.00%

mainstream curricula. This causes an overrepresentation of children from poor socio-economic backgrounds in special schools carrying a label of SEN.

This and international pressure has driven subsequent ministers of education to launch the discussion on inclusive education, which has been going on for more than 15 years in Belgium, meeting resistance from regular as well as special schools.

A new framework of graded learning support

In 2007, the Ministry of Education of the Flanders Region presented a comprehensive plan for a framework of graded learning support, in which all children, regardless their varying educational needs, would receive the education adapted to their individual needs. Children would have the right to choose between mainstream or special schools and would receive the same level of support whether in mainstream or special school (Vandenbroucke 2007). The framework took the modern notion of the *social model of disability*, which sees the degree of disability as not directly determined by the degree of bodily or functional anomaly, as a starting point. Having one or several impairments is one thing; the specific learning needs of children are another matter. For example, the educational needs of children with ASD are as diverse as more typical children. A less wide, but important range of diverse educational needs can be seen with children with Down's syndrome.

Learning problems, whatever their degree, have to be seen as a matching problem between environment and specific learning needs. They should in the first place be dealt with by schools with curricular adaptations, sometimes remediation, sometimes compensation or dispensation, and in only in the case of a more severe specific functional difficulty, by a more thoroughly individualised curriculum and individual assistance. Therefore, the new Learning Support Framework proposal suggests first determining the level of curricular adaptation and assistance needed, taking into account the specific needs of the child, but regardless of the disturbance. In this new framework SEN is defined as a spectrum of needs:

- a need for curriculum adaptations, while maintaining the main goals of the regular curriculum, but with differentiation, dispensation or compensatory measures;
- a need for a more thoroughly individually adapted curriculum;
- a need for assistive technology or materials;
- a need for personal assistance in order to compensate for functional loss, and enable participation;
- a need for extra therapeutic assistance within school hours (e.g., physiotherapy, speech and language therapy, occupational therapy, behaviour therapy);
- a combination of all these elements.

Five levels of adaptation are distinguished (Figure 1): on Level I a pupil will be able to follow the normal curriculum, possibly with some differentiation of quantity, modality or remedial measures. On Level II, the pupil will also still strive to follow the normal curricular objectives, with more differentiation, some compensatory or dispensation measures and extra support. On Level III and IV the goal is not to achieve the same academic goals as peers, but the pupil will follow a highly individualised curriculum with special assistance and/or equipment where needed, according to an Individual Education Plan (IEP) tuned to his specific needs. A pupil will be receiving education on Level V when he is temporarily out of school because of illness or circumstantial impossibility to be in a school.

Pupils' impairments are classified in four categories or 'clusters':

- In cluster 1 are children without (yet) a diagnosis; they might have a functional problem, but that is not (yet) documented.

Assessment of SEN: a system of graded learning support	Cluster 1 No diagnosis	Cluster 2 Impairment in academic learning	Cluster 3 Intellectual /motor/ sensory impairment	Cluster 4 Disorders in social interaction
Learning support level I Common curriculum – mainstream certificate prevention, differentiation, remediation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning support level II Common curriculum – mainstream certificate compensation, dispensation, additional learning objectives, reasonable adjustments	<input type="checkbox"/>	<input type="checkbox"/>	D E F Y	<input type="checkbox"/>
Learning support III Individualized curriculum – alternative certificate individual education programme & more intensive assistance		A B X	C D E F Y	G H Z
Learning support IV Individualized curriculum – alternative certificate Need for intensive assistance & care			C D E F Y	G H Z
Learning support V Not able to participate in school partial education, e.g. hospital		<input type="checkbox"/>		

Figure 1. Adapted Learning Support Framework (adapted from Van Rompu et al. 2008).
 Notes: A: mild intellectual impairment, B: Specific Learning Impairment, C: moderate/serious/profound intellectual impairment D: motor impairment, E: visual impairment, F: hearing and language impairment G: emotional/behavioural disturbance H: pervasive developmental disturbance; X, Y & Z: does not belong to impairment group but to cluster.

- Cluster 2 is for children with participation problems due to impairments mainly manifesting in acquiring academic skills (specific learning impairments such as dyslexia and dyscalculia and/or mild intellectual impairment).
- Cluster 3 are children with participation problems due to functional impairments in acquiring school as well as in a daily life skills (with moderate to severe intellectual, physical or sensory impairment or a combination of those).
- Cluster 4 are children with emotional/behavioural functional disturbances and/or autistic spectrum disorder, including children with a diagnosis of ADHD.

In the theoretical matrix, the existing target groups of special schools were fitted into these clusters: A for mild intellectual impairment, B for specific learning impairments, C for moderate, serious or profound intellectual impairment; D for motor impairment; E for visual impairment, F for auditory impairment; G for emotional/behavioural disturbance and H for pervasive developmental disturbance.

A classification matrix has been proposed (Figure 1) whereby the special needs are characterised by the product of a pupil’s level of required curricular adaptation and cluster he is belonging to (Van Rompu et al. 2007). Therefore, a more educational criterion is used, instead of the old medical one. Before, it was sufficient to have, for example, a label of autistic spectrum disorder to have special educational needs and therefore a referral to a special school or a right to have a SEN teacher in a mainstream school. In the new system, a child with this condition might have no need of a curricular adaption or a higher assistance.

In order to determine the feasibility, validity and reliability of this new classification matrix, and to estimate the number of children with special educational needs (and its budgetary consequences), the government decided to do a field test. Because the Centres for Pupils' Counselling have a key role in referring children to special schools, this group of assessors, was asked to participate in the field test.

Participants and methods

For this field-test an aselect stratified sample of 8649 pupils (out of a total of 1,109,909 pupils, aged 2.5–18 years) was drawn. Given that the Flemish education system consists of different formal tracks (e.g., in primary education there is mainstream education without and with support and eight different types of special needs education – see Table 1) and that for some of these tracks the number of pupils is relatively small, we opted to draw a sample with a confidence level of 95% and a confidence interval of 5% for each track of mainstream and special primary and secondary education in Flanders. This resulted in a stratified sample (separate samples are drawn for the different subpopulations, i.e. the different formal tracks) with 10 strata for primary education and 27 strata for secondary education. The sample size was determined by correcting the sample size for an infinite population, assuming maximum variance (confidence intervals around a 50% occurrence of phenomena) which is $n=384$. This sample size was corrected for the fact that the populations (e.g., the number of students in each track) is finite. This was done by the following formula:

$$n_{(final)} = \frac{384}{1 + \frac{384-1}{N}}$$

where N is the population size for every stratum. This resulted in a total sample size of 8649 pupils.

Finally, 8443 out of the 8649 selected pupils were re-assessed, resulting in a response rate of 97.5%. To generate correct frequency tables based on this sample, reweighting was needed. Depending on the stratum, weighting-factors were calculated for every unit in the sample. These weighting-factors are the result of dividing the relative frequency of a stratum in the population by the relative frequency of a stratum in the sample. For instance, in the population 94.72% of the pupil in primary education are in the 'regular' track. In our sample they make up for 13.37%. These children are reweighted with a factor of 7.09 (=94.72/13.37).

To ascertain the reliability of this re-assessment, a pilot study was performed with 20 assessors, after which a manual, wizard and electronic web-based form were designed. Because we received many questions and remarks from psychologists about children who could be placed in one of the clusters, but who did not respond to the strict criteria of the specific target groups, we had to adapt the matrix given by the government, by creating supplementary impairment groups: X for cluster 2 children not belonging to A nor B; Y for cluster 3 children not belonging to D, E nor F; and Z for children with behavioural/ autistic spectrum functional problems without having received a psychiatric DSM label (Figure 1). Trainings were organised for CPC collaborators and a helpdesk installed. Using the data from the pupils' files, known to the CPC in June 2008, staff (either psychologists or medical staff) from each of the 73

CPCs of Flanders assigned children into an online version of the new classification matrix, based on the files of the children. The re-assessments were done on the basis of the available data in the pupil's files at the end of the school year 2007–2008.

The assessors were sometimes 'blind' to the children and sometimes they knew the condition and context of the child. First the assessors had to determine existing levels of curriculum adaptation for any particular child, according to the criteria outlined above, and to translate these into levels I to V. Then the assessor had to determine the cluster (i.e., the category of most relevant functional difficulties). After this, the assessor had to indicate the 'old' target group. The online application also allowed the assessor to mention remarks and doubts.

To gain insight in the difficulties CPC collaborators experienced, and as a consequence to gain insight in aspects undermining the reliability, remarks made by CPC collaborators were collected and analysed. Results were analysed in a quantitative and qualitative way. Shifts from the present (medical) allocation to the new (educational) allocation have been analysed, as well as the comparison has been made with the theoretical expected allocations. This last step gave insight in the validity of the new educational allocation, answering the question whether the different 'categories' (i.e., a place in the matrix, see Figure 1) in the new framework matched with the subdivisions they were expected to cover.

Results

This study yielded interesting epidemiological results. In primary school age (6–12 years of age, see Table 2) 15.9% of the children require some form of educational adaptation and support (level II or higher), whether they have a diagnosis or not. In addition, 4.8% of the children are situated in cluster 2, 3 and 4, functioning on level I. These have a diagnosis of some disturbance, but at present do not receive any curricular adaptation. This means about 20% of children of primary school age have some kind of SEN. Of all primary school age children, 12.5 % have mild intellectual impairment and/or specific learning impairment (cluster 2). Moreover, 3.3% of all primary school age children have a diagnosed behavioural or autistic spectrum disorder (cluster 4). As for secondary education (12–18 years, see Table 3), 11% require higher levels of adaptation (level II or higher); 4.9% have a functional diagnosis but operate without curricular adaptation or support at level I (Table 2). Of the 12–18 year olds, 8.9% have mild intellectual impairment and/ or specific learning impairment (cluster 2); and 3.4 % have a diagnosed behavioural or autistic spectrum disorder (cluster 4).

We received more than 4000 comments made by the assessors, via the online helpdesk or direct remarks made in the online forms. Qualitative analysis revealed that most of them were related to the difficulty of associating a medically diagnosed disturbance – as found in the files – to a cluster, doubts about whether to assign to level III or IV, or doubts as to where to assign pupils with multiple impairments.

There was a mismatch between the 'old' categories of special education typology (Table 1) and the new clusters and target group identification: only 16% of the 13–18 year old children attending special schools of type 7 (hearing and language impairment) were re-assigned to category F (having effectively hearing and language impairment); the others were children with a diagnosis of ASD. Furthermore, 3.18% to 20.75% of the children who had a definite functional impairment (hence being assigned to cluster 2, 3 or 4) did not respond to the strict criteria of the pre-defined 'old' special needs target groups.

Table 2. Special Educational needs of primary school age children in Flanders in June 2008 after allocation in new Graded Learning Support Matrix. Levels are levels of support and adaptation as defined in new matrix. Explanation: see text and figure 1.

Primary school (6–12 years)						
	Cluster					total
	1	2	3	4	no	
Educational adaptation and support level	%	%	%	%	%	%
Level I	79.3%	3.9%	.4%	.5%	n.a.	84.1%
Level II	2.7%	3.7%	.3%	1.4%	n.a.	8.2%
Level III	n.a.	4.9%	.7%	1.0%	n.a.	6.5%
Level IV	n.a.	n.a.	.7%	.4%	n.a.	1.1%
Level V	n.a.	n.a.	n.a.	n.a.	.0%	.0%
Total	82.0%	12.5%	2.1%	3.3%	.0%	100.0%

Note: n.a.= not applicable.

Table 3. Special educational needs of secondary school age children in Flanders in June 2008. Explanation: see text.

Secondary school age (13–18 years)						
	Cluster					Total
	1	2	3	4	no	
Educational adaptation and support level	%	%	%	%	%	%
Level I	84.0%	3.0%	.4%	1.5%	n.a.	89.0%
Level II	1.1%	4.0%	.4%	1.0%	n.a.	6.5%
Level III	n.a.	1.9%	.5%	.5%	n.a.	2.9%
Level IV	n.a.	n.a.	.7%	.4%	n.a.	1.1%
Level V	n.a.	n.a.	n.a.	n.a.	.5%	.5%
Total	85.2%	8.9%	2.0%	3.4%	.5%	100.0%

Note: n.a.= not applicable.

Table 4. Percentage of children with functional impairments but not belonging to the strict definitions of the old special needs target groups.

	Primary	Secondary
X /total Cluster 2 (mild intellectual or learning impairment)	11.24%	17.34%
Y/total Cluster 3 (moderate to severe intellectual motor or sensory impairment)	20.75%	11.12%
Z/total Cluster 4 (behavioural or autistic spectrum impairment)	10.61%	3.18%

Discussion

The field test has permitted to give a fairly accurate idea of the distribution of children with SEN. Some striking shifts and needs have become more visible. First of all, the proportion of primary school age children with SEN, as counted in this new framework, amounts to as high as 20%, which is four times higher than the number counted before. However, this is more in accordance with the high numbers reported by Finland in the European study (EADSNE 2003), which in 2007/8 were already brought down to 7.96% (EADSNE 2008). In our view, the ‘narrow’ definition of SEN (there must be a medical disturbance, diagnosis and IQ criterion) has a mainly medical focus: this corresponds more to the criteria of the International Classification of Diseases (ICD). A ‘broader’ definition of SEN on the other hand corresponds to more educational criteria, and thus better reflects the true nature of the classroom situation and encompasses those pupils who have additional difficulties to benefit from ‘regular’ teaching. This is more in line with the viewpoints expressed in the WHO-based International Classification of Functioning (ICF-CY) (ICF-CY 2007), which sees disability as a *product* of impairments and functions, activity and participation limitations, influenced by external and personal factors and not just as a medical disturbance. Therefore, we suggest making more use of the ICF as a new diagnostic framework to assess all these domains.

In a matrix presentation, the information in any table cell is the product of vertical and horizontal information. Thus, a matrix presentation of SEN as a product of child characteristics and levels of curricular adaptations seems to be a better answer to special needs than the present linear definition. Although it still contains a risk of ‘labelling’ children and putting them in a certain category, the categories are no longer defined by medical disturbances, but by educational needs. Although a matrix does not allow a continuum, it nevertheless allows a better grading of needs.

The fact that there is a rather large overlap between the categories and that a substantial number of children (up to 20%) do not fulfil the strict target group criteria, indicates that the ‘old’ typology of special schools is indeed inadequate, as was already reported by school psychologists in an anecdotal way.

Another striking finding in this study is the existence of a relatively large group of children with mild intellectual and/or specific learning impairment: 12.5% in primary school age and 8.9% in adolescence. Many of these children, as became clear in the numerous remarks given by CPC staff when inputting the data on our web-based forms, although they do not fit the strict criteria of IQ-based intellectual impairment ($IQ < 70$), nevertheless display functional as well as learning problems that make schooling and daily life sometimes very problematic. In Belgium, as it happens, these children are often referred to special schools (type 1 or 8 special schools, or in the new terminology A & B target groups – see Figure 1). The original matrix definition was created by the government to counter this tendency. Our research data however found a substantial group that did not fit the strict definitions of IQ-based ‘mild intellectual impairment’ or specific learning impairment (with normal intelligence). Therefore, within cluster 2 – defined as ‘children with participation problems due to impairments mainly manifesting in acquiring academic skills’ – we had to add a target group X, defined as ‘children who have substantial difficulties in mainly academic learning with $IQ > 70$ but who function with a variety of cognitive difficulties’. For a schoolteacher, they represent a similar challenge as the children with ‘mild intellectual impairment’ based on the $IQ < 70$ criterion. Many of them come from poor socio-economic backgrounds. There is an overlap with the cluster 4 category of behavioural impairment.

This is a drawback of the matrix, as it was not possible to indicate 2 clusters simultaneously. Up until now, the tendency of assessors has been to refer them to separate special education provisions, leading to overrepresentation of children from poor social background in special education classes. It is known that low socio-economic status is a risk factor for developmental delay and subsequent special educational needs (Locke, Ginsborg, and Peers 2002; Spencer 2005). The new regulations will make referral to special schools less easy and will give the schools means to take specific measures on site. Obviously, these children need extra support, but the question is whether giving them a medical disturbance label (which previously was needed to obtain support) will answer their true needs. Some schools in the inner city centres of the large cities have a large percentage of these children and deal with them in the mainstream anyway, without however benefitting from adequate support. If the aim is to include these children better and at the same time provide them with adequate education with the aim of developing their true potential, a number of measures will have to be taken including a better teacher/child ratio and a programme incorporating cognitive activation methods (Roth and Szamoskozi 2003); adequate teacher training to stimulate and differentiate, and an assessment practice which reveals their potential rather than their deficiencies.

Feuerstein et al. (1981) have criticised the fallacy of psychometrics, suggesting that they cause social injustice and contributing to further exclusion. A more dynamic, interactive assessment method has been suggested to give a more adequate and useful picture of a child's true potential, leading to more adequate educational challenges (Tzurriel 2005), but this is hardly used by current professionals.

Another striking finding is the group of children with behavioural and/or autistic spectrum disturbances that now has become 'visible': 3.4%. Every teacher has children with this problem, and sometimes they are concentrated in certain areas and schools. The Centres for Pupils' Counselling, sometimes pushed by parents, tend to refer these children to a psychiatric department in order to confirm the diagnosis based on a DSM IV classification, which entitles them a 'special needs status' and gives them a 'ticket' for educational support. However, this entails a risk of too much medicalisation and/or psychiatricising, a problem that has a strong socio-cultural origin and that diverts attention from making interventions in these domains (Rose 1998).

Of course, a new matrix definition of SEN will not solve the challenge of dealing with these children. However, a broad definition of SEN such as that laid down in the matrix reduces the emphasis on the etiological diagnosis of children's disabilities. Instead, it urges professionals to focus on the support level that each individual pupil needs.

Conclusions

Children with the same diagnosis may need very different levels of support. Rather than categorising children in more or less homogenous target groups based on diagnosis, children with multiple, complex needs who are not easily assigned to one target group can be clustered and get the appropriate level of support.

This new terminology is based on a rather new vision that asks for clear guidelines, concrete operationalisation of support and the development of new competencies for teaching, guidance and assessment staff. It will be a challenge to train teachers as well as assessors (including medical staff to think contextually and functionally' and not primarily or exclusively in terms of 'disturbances'). A massive

investment will be needed to make them more competent in dealing with children with special needs in an inclusive way. We are currently investigating the validity of the Index for Inclusion as a tool to assist schools in this transformation process (Booth and Ainscow 2002). A working group has been established to study the practicability of an action-oriented or needs-based assessment system, which is a more functional assessment, involving in a more systematic way the child's context (family and school), with the aim of making assessment much more useful for a child's daily life (Pameijer et al. 2007)

Governments need to provide equal financing for children with similar needs in inclusive or special school settings. Although the Learning Support Framework still meets resistance in regular as well as special schools, this new conceptual basis – to look at children in this new, more comprehensive and inclusive way – seems to be a step forward in answering the new challenges of educating widely diverse children with widely diverse needs. The classification matrix tool could be useful in comparing data about SEN across countries.

Acknowledgements

This study was financed by the Ministry of Education of the Government of Flanders. We would like to acknowledge the conceptual and scientific support from the project steering group: Theo Mardulier, Wim Van Rompu, Anton Derks, Els Exter of the Ministry of Education. We also wish to thank our colleagues who collaborated in the web-site application: Renaat De Muynck, Daniël Du Seuil and Pieter Pauwels (Artevelde TTC Ghent).

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